

Hydrilla

(Hydrilla verticillata)



© Kerry Dressler

Hydrilla

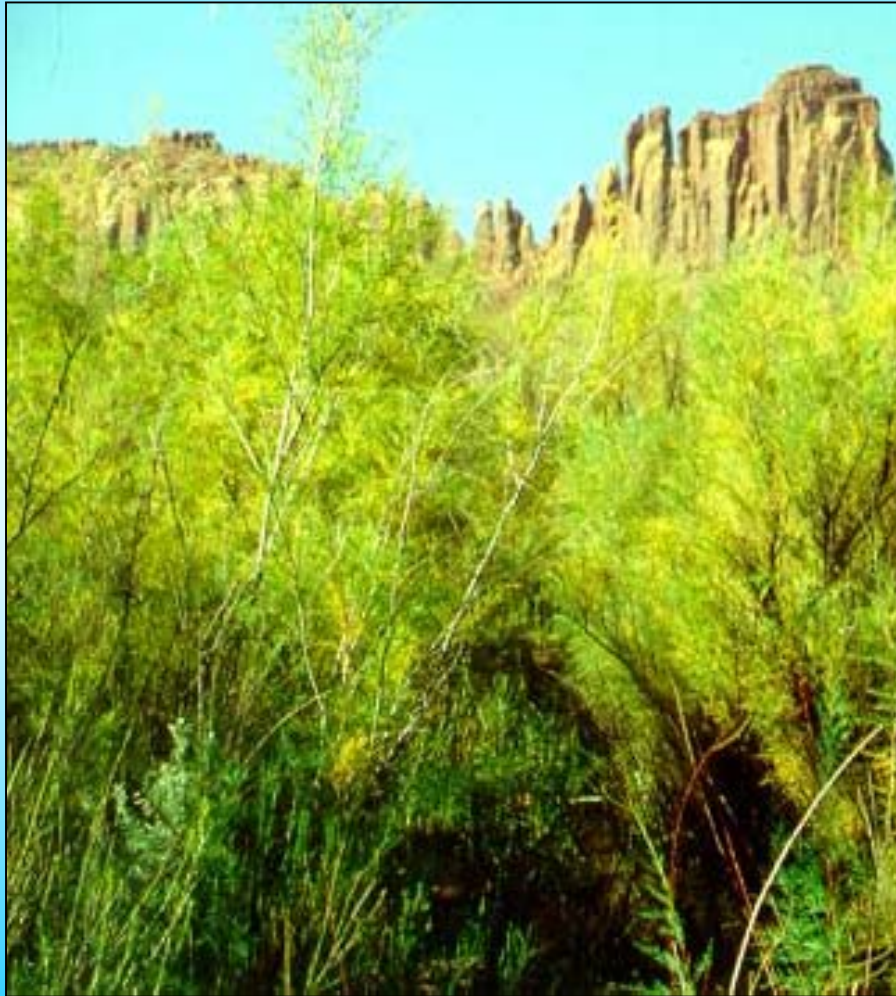
(Hydrilla verticillata)

- **Submersed plant**
 - grow to the surface forms dense mats
- **Flowers**
 - tiny white on long stalks
- **Stems**
 - slender, branched and up to 25 ft long
- **Leaves**
 - strap-like and pointed grow in whorls of 4-8 around the stem.
 - margins are distinctly saw-toothed



Saltcedar

(Tamarix ramosissima)



Saltcedar

(Tamarix ramosissima)

- **Spreading shrubs or Small trees**
- **Flowers**
 - **Pale pink to white**
- **Leaves**
 - **Alternate, Scale-like**
 - **Slender branches**

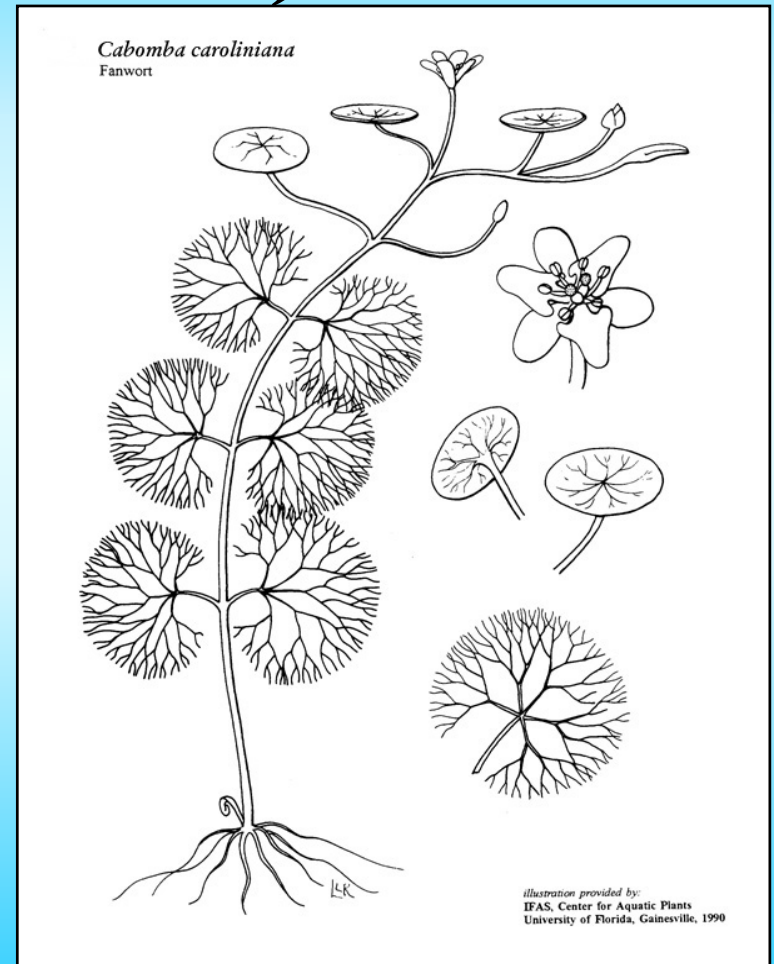


Fanwort

(Cabomba caroliniana)



© Kerry Dressler



Fanwort

(Cabomba caroliniana)

- **Submerged perennial**
- **Flowers**
 - small white, 6 petals
- **Leaves**
 - narrow
 - resemble a fan arranged on a narrow stem.
 - Small lily-like leaves that float on the surface below the flowers



Brazilian elodea (*Egeria densa*)



© Kerry Dressler

Brazilian elodea

- **Submersed, aquatic perennial**
 - can grow to depths of 20 ft
- **Flower**
 - White, three-petaled
 - produced on threadlike stalks
- **Leaves**
 - whorls of 4 around the stem
 - oblong to linear in shape
 - less than one inch in length, finely toothed.



Elodea Vs. Hydrilla

- **The major differences**
 - **elodea has large showy flowers while hydrilla has only small white flowers.**
 - **elodea is smooth to the touch if you pull a stem through your fingers, and it has serrulate leaf margins where hydrilla is rough and has sharply toothed leaf margins.**

Elodea Vs. Hydrilla



Water primrose

(Ludwigia hexapetala)



Water primrose

(Ludwigia hexapetala)

- **Perennial herb**
- **Flowers**
 - **Bright yellow**
 - **Normally with 5 petals.**
 - **blooms summer**
- **Leaves**
 - **Alternately-arranged, slightly hairy, willow-like.**



Garden loosestrife

(Lysimachia vulgaris)

- **Perennial**
- **Flowers**
 - Yellow, primrose-like
 - Clustered near top of the plant
- **Leaves**
 - Lance-shaped
 - Opposite or whorled
 - Dotted with black or orange glands



Purple loosestrife

(Lythrum salicaria)



Purple loosestrife

(Lythrum salicaria)

- **Perennial herb**
- **Stem**
 - square, woody
- **Flowers**
 - Purple, 5-7 petals
- **Leaves**
 - lance-shaped
 - opposite or whorled



Eurasian watermilfoil

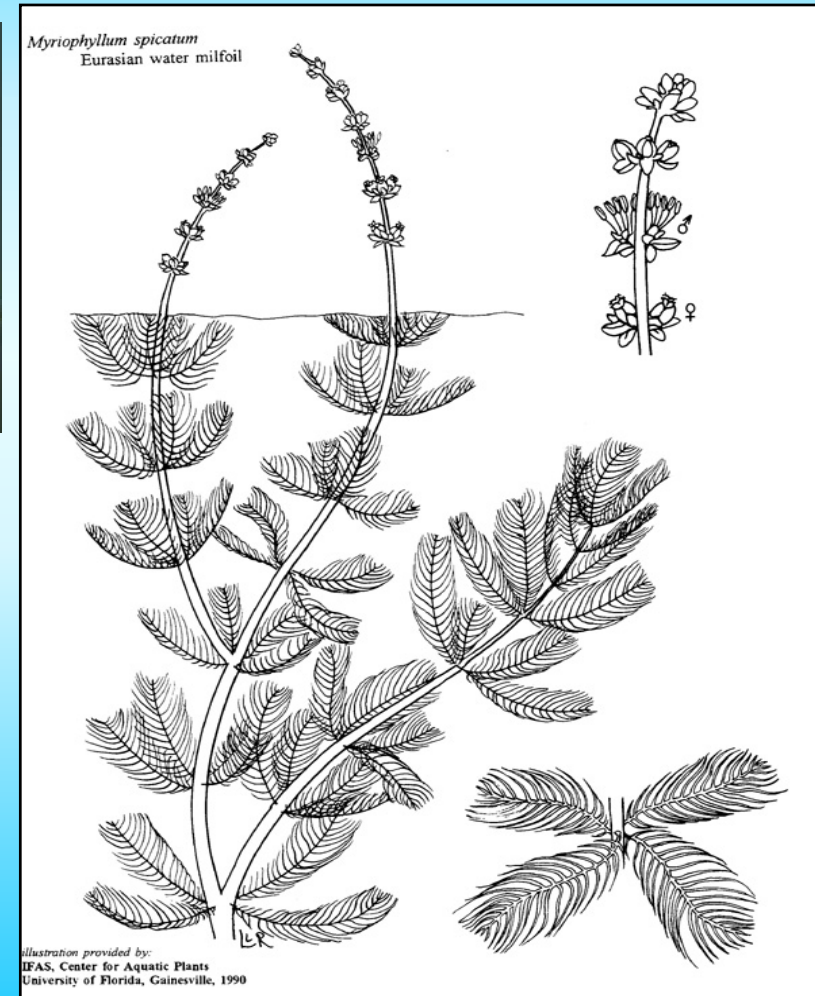
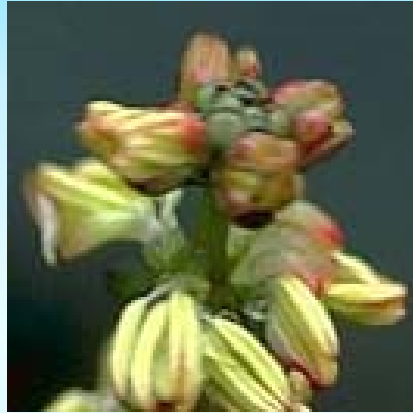
(Myriophyllum spicatum)



Eurasian watermilfoil

(Myriophyllum spicatum)

- Emergent herbaceous
- Stems
 - long branching
- Flowers
 - small reddish
 - above the water on a spike
- Leaves
 - feather-like whorled leaves



Yellow floating heart (*Nymphoides peltata*)



Yellow floating heart *(Nymphoides peltata)*

- **Perennial**
- **Flower**
 - **bright yellow, 5-petaled**
 - **Edges distinctively fringed**
- **Leaves**
 - **Heart-shaped to circular**
 - **Margins are slightly wavy**
 - **Often purplish underneath.**



Parrotfeather

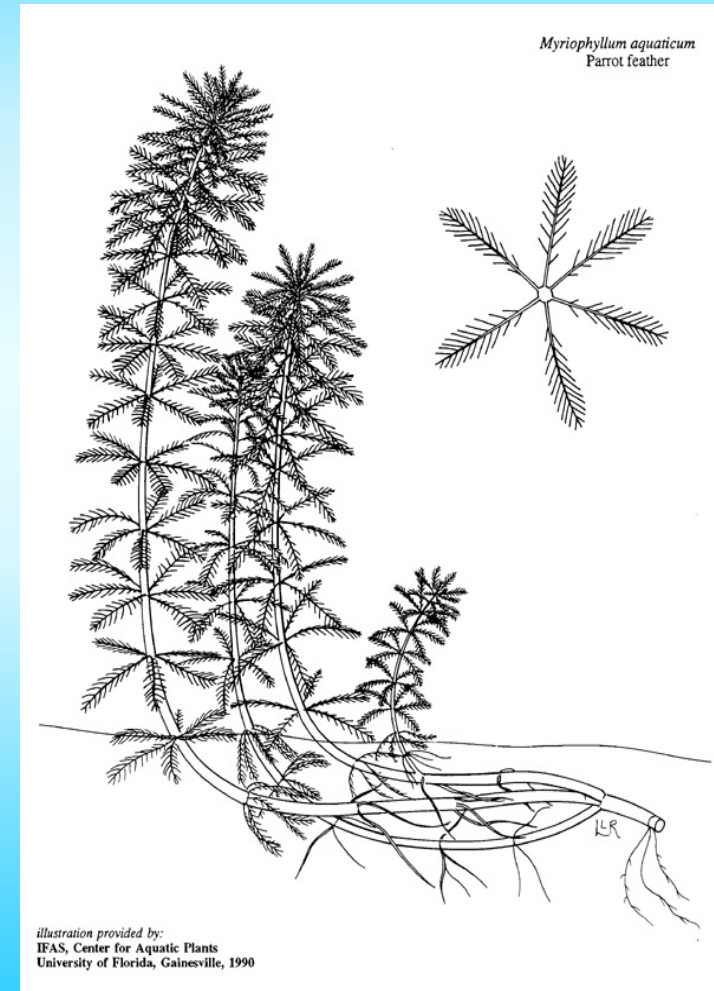
Myriophyllum aquaticum



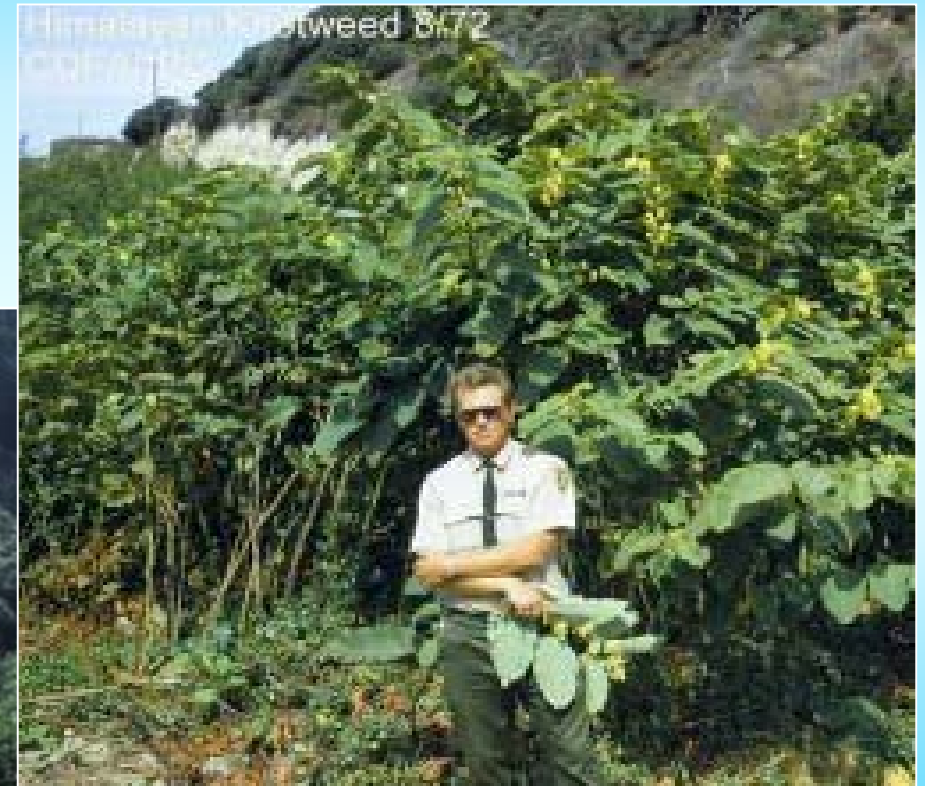
Parrotfeather

(*Myriophyllum aquaticum*)

- **Rhizomenous Perennial**
- **Flowers:**
 - Inconspicuous
- **Leaves:**
 - Submersed and emergent
 - Bright green emergent Leaves
 - few inches to one foot above the waters surface



Knotweed Species:



Himalayan, Giant & Japanese knotweeds

- **Perennial**
 - **Creeping rhizomes**
- **Stems**
 - **Hollow**
 - **7- 10 ft tall**
 - **Weakly woody**
 - **Swollen at nodes**
 - **Usually reddish-brown at maturity**



Knotweeds

- **Flowers**
 - Panicles
 - White to pinkish
- **Leaves**
 - Alternate
 - Lanceolate
 - Short hairs



Himalayan
Knotweed

Laurel
Shiner



Himalayan Knotweed
Laurel Shiner





Laurel Shiner

Giant, Japanese, & Himalayan Knotweed

Yellowflag Iris

Iris pseudacorus



Yellow Flag iris

(Iris pseudacorus)

- **Rhizomatous Perennial**
- **Flowers:**
 - Yellow with small black lines
 - Stems can carry up to 12 flowers
- **Leaves:**
 - Long and stiff
 - Sword shaped
 - Sharp edges



Fragrant waterlily

Nymphaea odorata



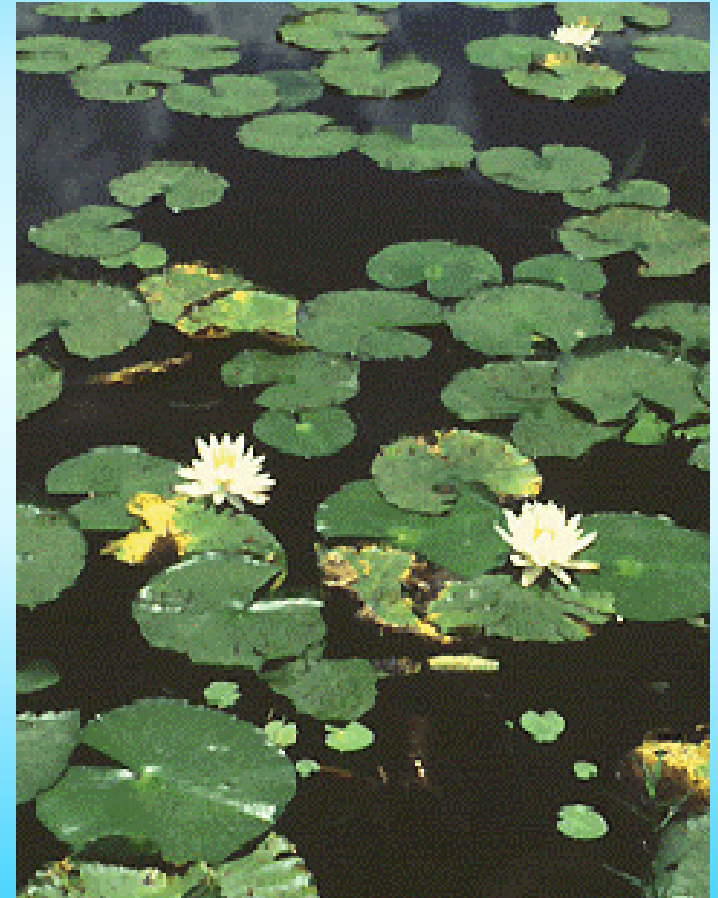
Fragrant Waterlily (*Nymphaea odorata*)

- **Aquatic Rhizomatous Perennial**
- **Flowers:**
 - large white or occasionally pink
 - float on the water's surface



Fragrant Waterlily

- **Leaves:**
 - **Floating**
 - **Spherical but with a basal cleft**
 - **Up to 2 feet in diameter**
 - **Green and smooth on the upper surface**
 - **Usually purple and finely hairy on the lower surface**
 - **Flat, smooth stalks**



Phalaris arundinacea
reed canarygrass



reed canarygrass

Phalaris arundinacea

- **Perennial grass**
- **Leaves**
 - flat, and usually between 10-15 mm. Wide
- **Impacts**
 - aggressive species that forms persistent, monotypic stands
- **Habitat**
 - disturbed wetlands including inland fresh meadows, shrub swamps, and wooded swamps



Myrtle spurge
(*Euphorbia myrsinites*)

c

- **Perennial forb**
 - **Spreads laterally**
- **Flowers**
 - **Inconspicuous**
 - **Showy bracts**
 - **Yellow-green**
 - **Early spring**
- **Leaves**
 - **Alternate, fleshy**
 - **Blue-green**





Taken by Laurel Shiner



Myrtle Spurge

Grant County Weed
Control Board

Eggleaf spurge

(Euphorbia oblongata)



- **Perennial herb**
- **Flowers**
 - **Cup like cluster of modified leaves**
- **Leaves**
 - **Alternate, Oblong**
 - **Smooth and hairless**
 - **finely toothed**



Leafy spurge (*Euphorbia esula*)

- **Perennial**
- **Flower**
 - **inconspicuous**
 - **small green without petals**
 - **showy yellow bracts**





Leafy spurge (*Euphorbia esula*)

- **Leaves**
 - **Alternate**
 - **yellow-green, turn red with the first frost**
 - **leaves located on the lower half of the stem are scale-like**
 - **The upper portion are linear to oblong.**
- ***Plants exude milky “sap”**



Kudzu

From the Plants
Data Base

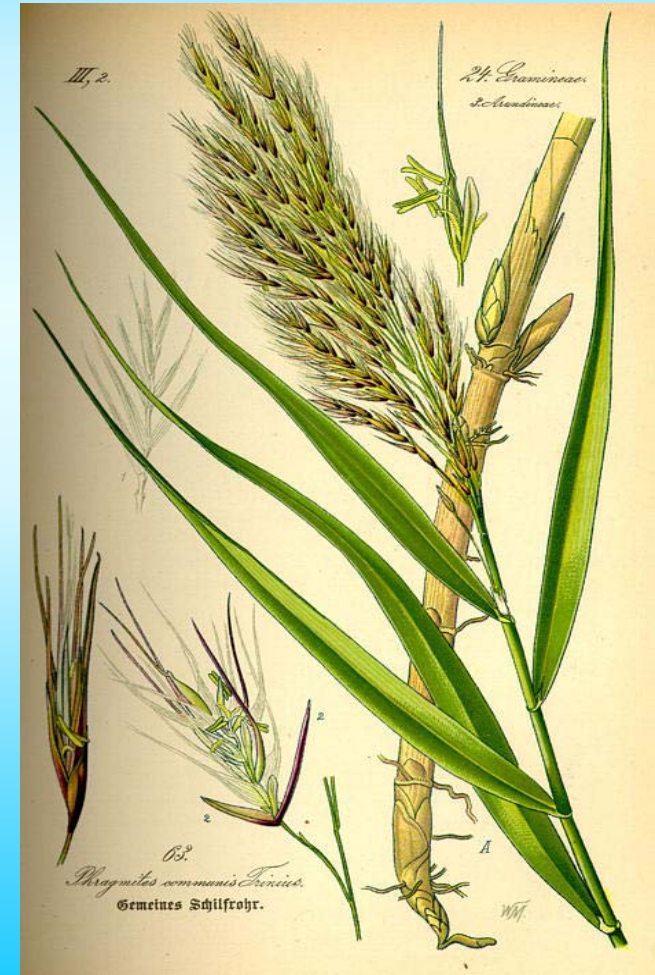


Phragmites

Phragmites australis

(Non-native Genotype)

- Perennial Grass
 - Creeping rhizomes
 - Stolon
- Stems
 - Hollow
 - 12 ft tall
- Leaves
 - Lanceolate
 - 8-16 inches long



Distinguishing Characteristics	Native Genotype	Non-Native Genotype
Observed stand Density	<i>Less dense</i>	<i>More Dense</i>
Stem thickness	<i>Thin, Approximately the size of a pencil. Stems appear “crooked” from blowing over in the wind.</i>	<i>Thicker, Approximately the size of a finger.</i>
Stem	<i>Smooth and shiny, appearing polished. Green in the summer, changing to brown or gray in the winter</i>	<i>Rough and Ribbed, dull Tan coloration</i>
Ligule Color	<i>Reddish-Purple in Spring. Fading to chesnut brown</i>	<i>Green to yellow-green</i>
Flower	<i>Less dense, possibly appearing earlier in the season. Senescing earlier.</i>	<i>More dense, “clusters” larger. Thought to senesce later (variable due to environmental factors)</i>

Stem density

Native Haplotypes



Introduced Haplotypes



Taken from Bernd Blossey's web site



Native Haplotypes



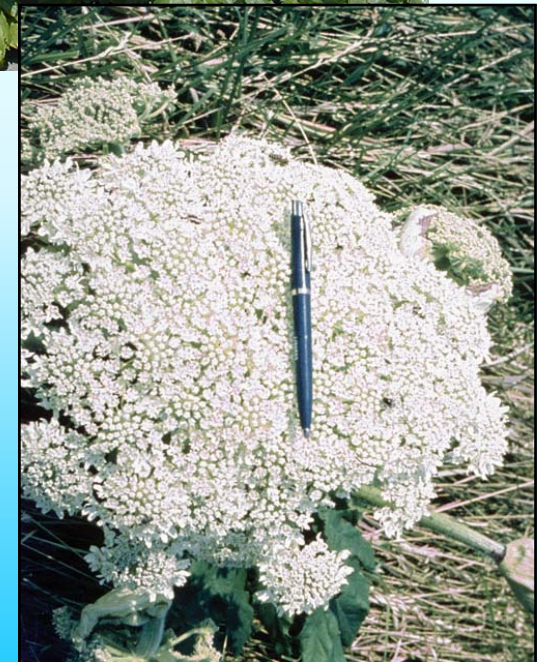
Introduced Haplotypes

Taken from Bernd Blossey's web site

Giant Hogweed

A

- **Perennial**
 - **tuberous root stalks**
- **Flower**
 - **broad flat-topped umbel**
 - **many small white florets**
- **Leaves**
 - **compound**
 - **may expand to 5 ft.**
 - **Each leaflet is deeply incised**



Cow-parsnip

Heracleum lanatum

N

- **A native, perennial forb, 3'-10' tall**
- **Flowers**
 - white/cream
 - flat-topped
- **Leaves**
 - rough/hairy,
 - palmately compound, large,
 - leaflets toothed.
- **Stem rough/hairy, hollow,**





Poison hemlock

Conium maculatum

c

- **Tall biennia 6-8 feet tall**
- **Flowers**
 - Small, white,
 - in large umbels
- **Leaves**
 - Large, alternate, dark green on the upper surface.
 - Fern-like, two to three times pinnately divided, deeply lobed.





Virginia Tech Weed ID Guide

Velvet leaf (*Abutilon theophrasti*)



Virginia Tech Weed ID Guide

- Summer annual reproduces by seed
- Flower
 - solitary, yellow, 5 petals
 - Seed pod “cheese wheel”
- Leaves
 - Alternate, Heart-shaped
- 3 to 8 feet tall
- Plant is very pubescent



Garlic mustard

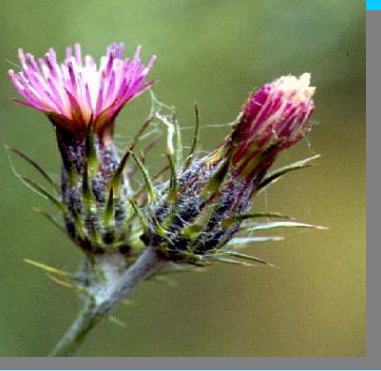
(*Alliaria petiolata*)

- **Cool-season biennial herb**
- **Flowers**
 - White, 4 petals
- **Leaves**
 - 1st year: rosette
 - 2nd year: alternate, triangular, “toothed”



Italian thistle

(*Carduus pycnocephalus*)



- **Winter annual**
- **Flowers**
 - 5 pinkish,
 - Cylindrical heads
 - Borne in terminal clusters
- **Leaves**
 - Oblanceolate to lanceolate



Slenderflower thistle

(*Carduus tenuiflorus*)

- **Winter annual**
- **Flowers**
 - 5-15 pinkish,
 - cylindrical heads
- **Leaves**
 - oblanceolate to lanceolate
 - pinnately divided with a terminal spine





Common crupina (*Crupina vulgaris*)

- **Winter annual (over winters as a rosette)**
- **Flower**
 - pink to purple flowers
 - 1 to 5 flowerheads
 - Branched
- **Leaves**
 - alternate,
 - finely divided into lace-like leaflets



Goatsrue

(Galega officinalis)

- **Perennial herb**
- **Flower**
 - Pea like
 - Whitish to bluish to purplish
 - Terminal or axillary racemes
- **Leaves**
 - Alternate
 - Odd-pinnate
 - 6-10 pairs of leaflets



Texas blueweed

(Helianthus ciliaris)

- **Rhizomatous Perennial**
- **Flower**
 - Ray flowers yellow to orange
- **Leaves**
 - Lance-shaped or narrow linear
 - attached directly to the stem, without stalks
- **Bluish or grayish green foliage**



Yellow devil hawkweed (*Hieracium floribundum*)

- **Perennial herb**
- **Flowers**
 - **Yellow, composites**
 - **Heads: flat-topped cluster**
- **Leaves**
 - **Lance-shaped, basal, glaucous**
 - with the widest part being near the tip.
 - The top of the leaf is smooth underside has bristly hairs



Policeman's helmet

(*Impatiens glandulifera*)

- **Herbaceous annual**
- **Flowers**
 - color ranges from white to all shades of pink and purple
 - irregular
 - 5 petals (2 fused)



Policeman's helmet

(Impatiens glandulifera)

- **Leaves**
 - oblong to ovate to elliptic
 - opposite or whorled,
 - usually 3 leaves to a node.
 - margins are sharply serrate
- **3-10 feet tall**



Foto: Anna-Lena Anderberg

Meadow clary

(Salvia pratensis)

- **Fibrous-rooted perennial**
- **Flowers**
 - Bilabiate, with the upper lip arched into a half circle.
 - Typically violet-blue
- **Leaves**
 - mostly basal
 - egg-shape to oblong



Clary sage

(*Salvia sclarea*)

- **Biennial or perennial herb**
- **Flowers**
 - **Bilabiate;**
 - **Upper corolla purple, lower whitish**
- **Leaves**
 - **triangular to egg-shaped**
 - ***extend up the stem**
- **The entire plant is hairy**



Silverleaf nightshade

(Solanum elaeagnifolium)

- **Perennial herb**
- **Flower**
 - blue-violet
 - 5 fused petals
 - With bright yellow stamens
 - On stalks in clusters or singly



Silverleaf nightshade

(*Solanum elaeagnifolium*)

- **Leaves**
 - lance-shaped
 - **Wavy margins**
 - **Covered with short, white hairs**
 - give the plant a silvery-gray color.
 - **Yellow spines on the leaf ribs of the plant.**



Buffalobur

(*Solanum rostratum*)



- **Annual**
- **Flowers**
 - yellow
 - 5 lobed, wheel-shaped
- **Leaves**
 - Alternate, petiolate,
 - (bi)pinnately lobed,
 - Spiny



Lawnweed

(Solvia sessilis)

- **Winter annual**
- **Flowers**
 - Small composite
 - Greenish-translucent disc flowers and lack rays
- **Leaves**
 - Pinnately divided
 - giving a feathery appearance



Johnsongrass

(Sorghum halepense)

- Perennial Grass
- Flowers(spikelets)
 - In pairs at the lower end of the flowering stalk,
 - In threes at the upper end
- Stems are solid with prominent, swollen nodes
- 3-10 feet tall



Spanish Broom

(*Spartium junceum* L.)

- **Perennial, evergreen shrub**
- **Flowers**
 - **Bright yellow**
 - **Pea-shaped**
 - **Growing in clusters at the branch ends**
 - ***Fragrant**
- **6-10 feet tall**



Spanish Broom

(*Spartium junceum* L.)

- **Leaves**
 - linear to lanceolate
 - Alternate
 - Simple and *one-parted,
 - Hairs present on the lower surface.
- *Round stems



Gorse

B

Ulex europaeus

- **Perennial, evergreen**
- **flowers**
 - shiny yellow, pea-like
 - solitary or racemous
 - clustered at branch tips
- **Leafless**
 - develop an awl-shape (spinelike).



Tansy ragwort (*Senecio jacobaea*)

- **Biennial**
- **Flower**
 - **Bright-yellow**
 - 13 petals
 - **Many in clusters**
- **Leaves**
 - **Deeply cut, blunt-toothed lobes**
 - **Dark green on top, whitish-green bottom**





Saint Johnswort

(Hypericum perforatum)

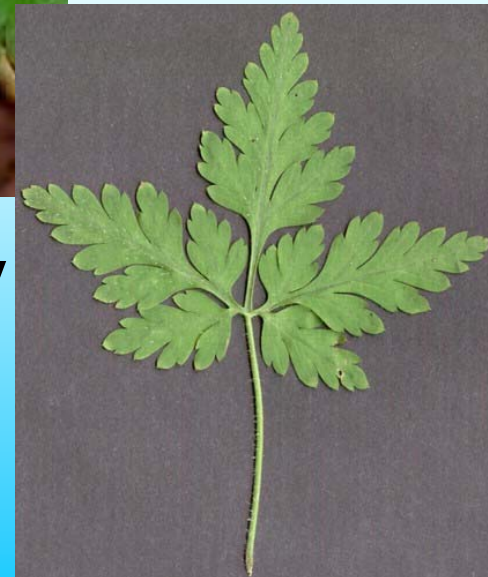
- **Perennial herb**
- **Flowers**
 - Yellow
 - 5 petals
- **Leaves**
 - Opposite
 - lance shaped
 - spotted with tiny translucent dots



Herb Robert

Geranium robertianum L.

- **Perennial**
- **Flower**
 - Pink or purple
 - 5-petals
- **Leaves**
 - Basals and opposite
 - Palmately compound, leaflets pinnately lobed and toothed,
 - Strongly aromatic unpleasant aroma



Dalmatian toadflax

Linaria dalmatica

- **Perennial herb**
- **Flowers**
 - **bright yellow, tinged with orange**
 - **resemble snapdragon flowers**
- **Leaves**
 - **light green, waxy, alternate**
 - leaves are heart-shaped and**
 - clasp the stem**



Yellow Toadflax

Linaria vulgaris

- **Perennial**
- **Flowers**
 - **Snapdragon type**
 - **yellow (butter) and orange (eggs)**
 - **long with spur**
- **Leaves**
 - **Numerous long and narrow pale green**
 - **smooth and pointed**



Wild chervil

- **Biennial**
- **Flowers**
 - **White**
 - **Small**
- **Leaves**
 - **two to three pinnate**
- **Habitat**
 - **Hedgerows, edges of woods, wastelands**



Bur-chervil

Anthriscus caucalis

- **Biennial**
- **Flowers**
 - **White**
 - **Small**
- **Leaves**
 - **two to three pinnate**
 - **With hairs along the stem**

